

What is Claimed is:

1. A plastic film electrostatic adsorption apparatus comprising: an electrostatic adsorption electrode, an insulated dielectric layer that covers the above electrostatic adsorption electrode and has a center line average roughness of the adsorption surface on which the plastic film is placed of 0.5  $\mu\text{m}$  or less, and a power supply electrode that applies a voltage to the above electrostatic adsorption electrode.
2. The plastic film electrostatic adsorption apparatus according to claim 1 wherein, the electrostatic adsorption electrode employs a bipolar structure having a positive electrode and negative electrode, and is characterized by its outermost end being homopolar.
3. The plastic film electrostatic adsorption apparatus according to either claim 1 or claim 2 wherein, the interval between the positive electrode and negative electrode that compose the above electrostatic adsorption electrode is 1 to 10 times the thickness of the above insulated dielectric layer.
4. The plastic film electrostatic adsorption apparatus according to claim 1 wherein, the volumetric specific resistivity value of the above insulated dielectric layer is from  $10^8$  to  $10^{12}$   $\Omega\text{cm}$ .
5. The plastic film electrostatic adsorption apparatus according to claim 2 wherein, the volumetric specific resistivity value of the above insulated dielectric layer is from  $10^8$  to  $10^{12}$   $\Omega\text{cm}$ .
6. The plastic film electrostatic adsorption apparatus according to claim 3 wherein, the volumetric specific resistivity value of the above insulated dielectric layer is from  $10^8$  to  $10^{12}$   $\Omega\text{cm}$ .
7. A plastic film electrostatic adsorption method that uses the plastic film electrostatic adsorption apparatus according to claim 1 wherein,

the surface area of the adsorption surface side of the electrostatic adsorption electrode is 10 to 80% of the surface area on which the plastic film is in contact with the adsorption surface.

8. A plastic film electrostatic adsorption method that uses the plastic film electrostatic adsorption apparatus according to claim 2 wherein, a plastic film is electrostatically adsorbed onto an adsorption surface of an insulated dielectric layer in a state in which the outermost end of the electrostatic adsorption electrode protrudes beyond the outermost edge of the plastic film, and the length of its protrusion is 4 mm or less.

9. A plastic film electrostatic adsorption method that uses the plastic film electrostatic adsorption apparatus according to claim 1 wherein, the electrostatic adsorption voltage is either lowered or the application of electrostatic adsorption voltage is discontinued after electrostatic adsorption of the plastic film.